NEVADA DIVISION OF ENVIRONMENTAL PROTECTION
FACT SHEET

(pursuant to NAC 445A.236)

Applicant: Glenn Bakker
Carico Farms, Inc.
7405 South Meridian Road
Lovelock, Pershing County, Nevada 89419

Billing Address: P. O. Box 18160
Reno, Nevada 89511

Permit: NEV2008511

Location: Carico Farms, Inc. Bio-Organic Reuse Facility
7405 South Meridian Road
Lovelock, Pershing County, Nevada 89419
Latitude: 40° 04' N
Longitude: 118° 33' W
Township 25 N, Range 31 E, Section 3 MDB&M

Drinking Water Protection Area / Wellhead Protection Area: The Carico Farms, Inc. agricultural facility is not within any Drinking Water Protection zone, nor is the facility within a Wellhead Protection Zone.

General: The Applicant proposes to land apply aqueous fluids and associated solids from treated grease trap material for use as a soil amendment and nutrient source on nutrient deficient agricultural land. The grease trap material, provided by Waters Septic Tank Service d.b.a. Waters Vacuum Truck Service, is treated onsite using a patent pending process system. Fats, oils and greases from the grease trap material extracted during the treatment process are used onsite for power generation, and have the potential for use as feed stock for biofuel production. The aqueous fluids and associated solids from treated grease trap material will be applied as a fertilizer and soil amendment for beneficial use on portions of nutrient deficient agricultural land at the Carico Farms, Inc. Project, south of Lovelock, Pershing County, Nevada. The Applicant has applied for a Special Use Permit for the facility by Pershing County, issuance of which is contingent upon the Applicant obtaining a Water Pollution Control Permit.

Waters Vacuum Truck Service is a licensed hauler and is required to maintain this license to transport grease trap material to the facility. Should the Applicant seek to accept for treatment and application grease trap material provided by another licensed hauler, the Division may require major modifications to the permit.

Carico Farm, Inc. is owned by Glenn Bakker. The farmland is flood irrigated. The aqueous fluids and associated solids from treated grease trap material applied must be screened to remove solids over 5/16-inch in size before the material can be land applied. The aqueous fluids and associated solids from treated grease trap material must be incorporated into the soil within 6 hours of being land applied. A crop must be planted to uptake the nitrogen that is contained in the aqueous fluids and associated solids from treated grease trap material within one year of application. The application rate will be based on the nitrogen needs of the crop to be planted. To reapply aqueous fluids and associated solids from treated grease trap material to cropland, the crop must be harvested. Grazing does not meet this requirement.

The applicant proposes to install four 10,000-gallon holding tanks at the beneficial use site to store the aqueous fluids and associated solids from treated grease trap material during inclement weather and when the incorporation equipment is not operational. The tanks will be equipped with sight glasses for tank level indicators. The tanks will also be equipped with one-inch ball valves on the tank inlets to facilitate mixing and sample collection. Prior to entering the tanks, grease trap material must be screened through at least a screen with maximum hole size of 5/16 inch. Oversize material will be removed to a covered and lined dumpster for holding until disposal at an approved landfill. The dumpster will be dosed with lime for odor and vector attraction reduction.

Receiving Water Characteristics: The groundwater is reported to be at a depth of approximately 8 feet below ground surface in the Applicant's on-site water level monitoring well. Profile II analytical analysis of the monitoring well water sample indicate poor quality, with exceedances of Profile II maximum concentration levels (MCL) for Aluminum, Chloride, Fluoride, Iron, Manganese, Sulfate, and Total Dissolved Solids (TDS).

Groundwater quality monitoring shall be required for the aqueous fluids and associated solids from treated grease trap material site.

Applied Material Characteristics: Only aqueous fluids and associated solids from treated grease trap material may be land applied under this permit. Aqueous fluids and associated solids from treated grease trap material is either liquid or solid material removed from grease interceptor equipment at food service installations that has been treated to remove fats, oils and greases. This does not include material removed from a septic tank, cesspool, portable toilet, Type III marine sanitation device, or similar treatment works. Further, it does not include liquid or solid material removed from a septic tank, cesspool, or similar treatment works that receives either commercial or industrial wastewater.

Flow: The application rate, in gallons of treated grease trap material per acre per year, shall be based on the nitrogen needs of the crop to be grown. The Permittee has requested an allowed maximum application rate of 100,000 gallons of treated material per acre per year. The Applicant is required to monitor the nitrogen content of the material applied, and is required to grow and harvest a crop that has an annual nitrogen requirement of **AT LEAST** the nitrogen applied**.**

Proposed Treated Grease Trap Material Use Requirements:

- Aqueous fluids and associated solids from treated grease trap material shall not be applied to land if the depth to groundwater is less than 3 feet.
- Aqueous fluids and associated solids from treated grease trap material shall not be applied to land within 100 feet of any public roadway or within 600 feet of any residence.
- Aqueous fluids and associated solids from treated grease trap material shall not be applied to land within 200 feet of monitoring wells.
- Aqueous fluids and associated solids from treated grease trap material shall not be applied within 200 feet of a drinking water well not defined as a public water system.

- Aqueous fluids and associated solids from treated grease trap material shall not be applied within 50 feet of an irrigation well that has been sealed per Nevada Administrative Code (NAC) 534.380.

- Aqueous fluids and associated solids from treated grease trap material shall not be applied within 200 feet of an irrigation well that is not sealed or cannot be documented as sealed per NAC 534.380

- Aqueous fluids and associated solids from treated grease trap material shall not be applied within 1,000 feet of a public water system well.

- Aqueous fluids and associated solids from treated grease trap material shall not be applied within 50 feet of any irrigation or drainage ditch, swale, intermittent stream, creek, river, wetland, lake, or other surface water.

- Equipment to incorporate the aqueous fluids and associated solids from treated grease trap material into the soil shall be on the site and in operating condition before the treated grease trap material is land applied.

- Food crops for human consumption shall not be grown on land that has had aqueous fluids and associated solids from treated grease trap material applied within the past five (5) years. The permit must be modified by the Division to allow food crops to be grown within 5 years of application of aqueous fluids and associated solids from treated grease trap material

- The aqueous fluids and associated solids from treated grease trap material shall be land applied at a uniform rate by means of a spray bar, splash plate, or other method approved by the Division.

- The grease trap material shall be screened through a 5/16-inch or finer screen to remove solids from the material prior to land application. Solid material removed from the grease trap material shall be disposed in an approved landfill.

- All treatment equipment and storage tanks shall be within appropriate secondary containment, and appropriate Best Management Practices (BMPs) shall be applied.

- All tanks used for storage at the beneficial use site shall be permanently labeled to identify the contents of the tank, the Permittee, the Permittee's phone number, and the Permittee's address.

- All tanks storing aqueous fluids and associated solids from treated grease trap material shall be inspected daily for leakage. Documentation of the inspections shall be maintained in a bound logbook at the facility. Leaking tanks shall be immediately evacuated and not returned to service until all leaks have been repaired.

- The Permittee shall maintain in the onsite logbook details of the operation of the facility, including, but not limited to, gallons of grease trap material received, treated, and applied, with appropriate dates.

Proposed Effluent Limitations and Monitoring Requirements: Monitoring and sampling of treated grease trap material performed in compliance with the requirements of this permit shall be as specified below:

Table 1.A.: Treated Grease Trap Material Monitoring

BIOSOLIDS CHARACTERISTICS	DISCHARGE LIMITATIONS	MONITORING REQUIREMENTS	
	Quarterly Average	Measurement Frequency	Sample Type
Treated Grease Trap Material Applied (gallons)	Monitor & Report	Monthly	Calculate
Cumulative Annual Treated Grease Trap Material Applied (gallons/acre/year)	100,000	Monthly	Calculate
Application Area (acres)	Monitor & Report	Monthly	Report
Organic Nitrogen (mg/Kg)	Monitor & Report	Monthly	Composite [1]
Ammonia Nitrogen (mg/Kg)	Monitor & Report	Monthly	Composite [1]
Nitrate Nitrogen (mg/Kg)	Monitor & Report	Monthly	Composite [1]
pH (Standard Units)	Monitor & Report	Monthly	Composite [1]
Total Phosphorus (mg/l)	Monitor & Report	Monthly	Composite [1]
Sulfate (mg/l)	Monitor & Report	Monthly	Composite [1]
Fluoride (mg/l)	Monitor & Report	Monthly	Composite [1]
Iron (mg/l)	Monitor & Report	Monthly	Composite [1]
Fats, Oils and Greases (FOG) (mg/l)	Monitor & Report	Monthly	Composite [1]
Plant Available Nitrogen Applied (lbs/acre)	Monitor & Report	Monthly	Calculate
Crop Grown (type)	Monitor & Report	Annually[2]	Report
Crop Yield (dry metric tons/acre)	Monitor & Report	Annually[2]	Calculate

1. On a monthly basis, the Permittee shall collect a composite sample of treated grease trap material from the four (4) holding tanks on site, which shall be analyzed for the listed parameters.
2. To be submitted with the 4th quarter report.

Groundwater Monitoring: The Permittee shall monitor and sample Monitor Wells MW-1 and MW-2 on a quarterly basis, according to the following:

Table 1.B.: Groundwater Monitoring

PARAMETER	REQUIREMENTS	SAMPLE LOCATIONS	SAMPLE FREQUENCY	SAMPLE TYPE
Depth to Groundwater (feet)	Monitor & Report	MW-1, MW-2	Quarterly	Field Measurement
Groundwater Elevation (feet AMSL)	Monitor & Report	MW-1, MW-2	Quarterly	Calculate
Nitrate as N (mg/L)	Monitor & Report	MW-1, MW-2	Quarterly	Discrete
Total Nitrogen (mg/L)	10	MW-1, MW-2	Quarterly	Discrete
Total Phosphorus (mg/L)	Monitor & Report	MW-1, MW-2	Quarterly	Discrete
Fluoride (mg/L)	Monitor & Report	MW-1, MW-2	Quarterly	Discrete

mg/L: Milligrams per liter

Schedule of Compliance: The Permittee shall implement and comply with the provisions of the schedule of compliance after approval by the Administrator, including in said implementation and compliance, any additions or modifications that the Administrator may make in approving the schedule of compliance. The Permittee shall implement and/or execute the following scheduled compliance requirements:

i. Upon the effective date of this permit, the Permittee shall achieve compliance with the reuse limitations.

ii. The Permittee shall submit reports illustrating compliance or noncompliance with specified compliance dates within 14 days of any respective, scheduled compliance date.

iii. **By MMM DD, 2008,** the Permittee shall submit an finalized Operation and Maintenance (O&M) Manual covering the beneficial use and storage of the aqueous fluids and associated solids from treated grease trap material to the Division for review and approval. The O&M Manual shall also include information that would be applicable to a Nutrient Management Plan.

Rationale for Permit Requirements: Permit requirements are necessary to protect the public health and prevent the land application site from becoming a public nuisance or a source of groundwater pollution.

Proposed Determination: The Division has made the tentative determination to issue the proposed permit for a five (5) year period.

Procedures for Public Comment: The notice of the Division's intent to issue a permit authorizing the facility to discharge to the groundwater of the State of Nevada subject to the conditions contained within the permit is being sent to the **Lovelock Review/Miner** and the **Reno Gazette Journal** for publication. The notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit can do so in writing for a period of 30 days following the date of the public notice. In order to be considered, written

comments must be hand-delivered, sent via mail (postmarked), emailed or faxed no later than **5:00 P.M. on September 8, 2008**. The comment period can be extended at the discretion of the Administrator.

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator or any interested agency, person or group of persons.

The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted.

Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determined to be appropriate. All public hearings must be conducted to accordance with NAC 445.150.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445.274.

Prepared by: Janine O. Hartley
Staff Engineer II
June, 2008